

## Afterword

With the development of a mature institutional identity in the 1960s, cell biology joined the ranks of the biological disciplines. Although its roots were interdisciplinary, I have described how it developed into a distinct and enduring discipline. A critical element in this achievement was that it deployed new research techniques, especially cell fractionation and electron microscopy, which enabled its practitioners to explore mechanisms that were inaccessible to existing disciplines such as cytology and biochemistry. Using these tools the pioneers in cell biology, sometimes in collaboration with biochemists and molecular biologists, developed mechanistic explanations of numerous cell functions at multiple levels of organization. The discovery of these mechanisms, as described in Chapters 5 and 6, exemplifies the project of explaining phenomena mechanistically that I presented more abstractly in Chapter 2.

Cell biology, like any discipline, continues to develop and adjust its niche relative to other disciplines. It is most distinctive in (1) the attention it gives to variations in structure and function across cells from different organs and organisms; and (2) its status as an interdisciplinary nexus in which findings from physical, chemical, developmental, and other types of investigation are integrated toward an overall goal of understanding the cell. The emphasis given to different contributing disciplines has changed over time, however. In the 1950s and 1960s, collaborations with biochemists were of crucial importance. More recently, cell biology has drawn closer to molecular biology. In November 1989 the American Society for Cell Biology established a new journal, initially named *Cell Regulation*, whose mission statement provides a sense of how the scope of cell biology had grown and shifted toward molecular biology:

CELL REGULATION . . . publishes papers describing outstanding research contributions in molecular cell biology. The scope of the journal covers a broad